

88.

~~IN THE CLAIMS:~~

Please delete claims 1-79 and add the following new claims:

~~80. (New) A method for applying electrical energy to a target site on a structure on or within a patient's body, the method comprising:~~

positioning an electrode terminal into at least close proximity with the target site in the presence of an electrically conducting fluid;

positioning a return electrode within the electrically
conducting fluid to generate a current flow path between the
electrode terminal and the return electrode; and

applying a high frequency voltage difference between the electrode terminal and the return electrode such that an electrical current flows from the electrode terminal, through the region of the target site, and to the return electrode through the current flow path.

81. (New) The method of claim 80 wherein the electric current flows substantially through the electrically conducting fluid while minimizing electric current flow passing through the body structure.

82. (New) The method of claim 80 wherein at least a portion of the electric current passes through the body structure.

83. (New) The method of claim 80 further comprising immersing the target site within a volume of the electrically conductive fluid and positioning the return electrode within the volume of electrically conductive fluid to generate the current flow path between the target site and the return electrode.

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84. (New) The method of claim 80 further comprising delivering the electrically conductive fluid to the target site.

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85. (New) The method of claim 80 wherein the electrode terminal comprises a single active electrode disposed near the distal end of an instrument shaft.

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86. (New) The method of claim 80 wherein the electrode terminal includes an array of electrically isolated electrode terminals disposed near the distal end of an instrument shaft.

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87. (New) The method of claim 80 wherein the electrically conductive fluid comprises isotonic saline.

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88. (New) The method of claim 80 including independently controlling current flow to the electrode terminal based on electrical impedance between the electrode terminal and the return electrode.

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89. (New) The method of claim 80 wherein the return electrode is spaced from the electrode terminal such that when the electrode terminal is brought adjacent a tissue structure immersed in electrically conductive fluid, the return electrode is spaced from the tissue structure and the electrically conductive fluid completes a conduction path between the electrode terminal and the return electrode.

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92. (New) The method of claim 90 further comprising applying a sufficient voltage difference between the return electrode and the electrode terminal to effect the electrical breakdown of tissue in the immediate vicinity of the electrode terminal.

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93. (New) The method of claim 80 further comprising measuring the temperature at the target site and limiting power delivery to the electrode terminal if the measured temperature exceeds a threshold value.

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94. (New) The method of claim 80 further comprising applying a sufficient high frequency voltage difference to vaporize the electrically conductive fluid in a thin layer over at least a portion of the electrode terminal and to induce the discharge of energy to the target site in contact with the vapor layer.

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95. (New) The method of claim 94 wherein at least a portion of the energy induced is in the form of photons having a wavelength in the ultraviolet spectrum.

20
96. (New) The method of claim 94 wherein at least a portion of the energy is in the form of energetic electrons.

21
97. (New) The method of claim 80 wherein the voltage is in the range from 500 to 1400 volts peak to peak.

22
98. (New) The method of claim 80 further comprising generating a voltage gradient between the electrode terminal and tissue at the target site, the voltage gradient being sufficient to create an electric field that causes the breakdown of tissue through molecular dissociation or disintegration.

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99. (New) The method of claim 84 wherein the electrode terminal is located on the distal end of a probe, and wherein the delivering step comprises supplying the electrically conducting fluid to a proximal end of an axial lumen within the probe and directing the fluid through a distal end of the axial lumen to the electrode terminal,

100. (New) The method of claim 84 further including positioning a distal end of a fluid supply shaft adjacent the electrode terminal, the delivering step comprising directing the electrically conducting fluid through an inner lumen in the fluid supply shaft that is electrically connected to the return electrode and discharging the fluid through an open distal end of the supply shaft towards the electrode terminal.

101. (New) The method of claim 99 wherein the return electrode is an inner tubular member defining an axial lumen electrically connected to the inner tubular member, the delivering step including directing electrically conducting fluid through the inner lumen to the distal end of the probe over the electrode terminal.

102. (New) The method of claim 99 wherein the return electrode is an outer tubular member defining an axial passage between the outer surface of the probe and the inner surface of the outer tubular member, the delivering step including directing the electrically conducting fluid through the inner lumen to the distal end of the probe over the electrode terminal.

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103. (New) An electrosurgical probe for applying electrical energy to a tissue structure at a target site, the probe comprising:
a shaft having a proximal end and a distal end;
an electrode terminal having a tissue treatment portion disposed at or near the distal end of the shaft;
a return electrode coupled to the shaft and having an

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109. (New) The probe of claim 103 wherein the electrode terminal extends away from the shaft by a distance in the range from 0.00 mm to 3.0 mm.

110. (New) The probe of claim 103 further comprising an electrode array disposed at the distal end of the shaft, the electrode array comprising a plurality of electrode terminals.

111. (New) The probe of claim 103, further comprising an insulating support positioned near the distal end of the probe between the return electrode and the electrode terminal and comprising an inorganic matrix material.

112. (New) The probe of claim 106 wherein the inorganic matrix material is selected from the group consisting essentially of glass, ceramic and glass/ceramic.

113. (New) The probe of claim 105 wherein the electrode array includes at least three electrically isolated terminals having substantially the same applied potential.

114. (New) The probe of claim 103 further comprising a single active electrode terminal, wherein the single active electrode terminal and the return electrode are configured to effect the electrical breakdown of tissue in the immediate vicinity of the electrode terminal when high frequency voltage is applied between the electrode terminal and the return electrode in the presence of electrically conducting fluid.

115. (New) The probe of claim 103 wherein current or voltage is limited to the electrode terminal based on impedance between the electrode terminal and the return electrode.

116. (New) The probe of claim 103 further comprising an active current limiting element coupled to the electrode

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terminal and comprising an impedance sensor adapted for coupling to a high frequency voltage source.

117. (New) The probe of claim 116 wherein the impedance sensor comprises means for measuring current flow for a given applied voltage.

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118. (New) The probe of claim 116 wherein the impedance sensor comprises a resonant series output circuit having a resonant frequency that changes with the capacitance of the load.

119. (New) The probe of claim 116 further comprising a passive current limiting element for limiting or interrupting current flow to the electrode terminal based on the impedance between the electrode terminal and the return electrode.

120. (New) The probe of claim 119 wherein the passive current limiting element is selected from the group consisting essentially of inductors, capacitors, resistors and combinations thereof.

121. (New) The probe of claim ? wherein the return electrode and the electrode terminal are positioned relative to each other such that the conduction path passes through the tissue structure at the target site.

122. (New) The probe of claim ? wherein the return electrode and the electrode terminal are positioned relative to each other such that the conduction path passes directly from the electrode terminal through the electrically conductive fluid to the return electrode.

123. (New) The probe of claim ? wherein the return electrode is spaced from the electrode terminal, and the return electrode and electrode terminal are configured such that, when

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